PATENT ABSTRACTS OF JAPAN

(11)Publication number:

2000-173669

(43) Date of publication of application: 23.06.2000

(51)Int.CI.

H01M 10/44

H01M 4/02

H01M 4/38

H01M 4/42

H01M 10/40

H02J 7/10

(21)Application number: 10-342889

(71) Applicant: MATSUSHITA ELECTRIC IND CO

LTD

(22)Date of filing:

02.12.1998

(72)Inventor: INOUE KAORU

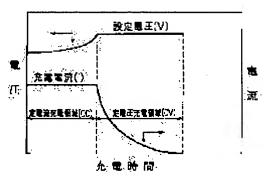
KOSHINA HIDE

SHIMAMURA HARUNARI

NITTA YOSHIAKI

(54) CHARGING METHOD FOR NONAQUEOUS ELECTROLYTE SECONDARY BATTERY (57) Abstract:

PROBLEM TO BE SOLVED: To improve a charging/discharging cycle life characteristics of a battery, using silicon and zinc for a negative electrode. SOLUTION: In charging a secondary battery provided with a composite particle, in which the whole or a part of the circumference of a nuclear particle consisting of a solid phase A using silicon or zinc is covered by a solid phase B, in a negative electrode, a constant current charging area, in which charging is carried out at a fixed current value I until a set voltage E is attained, and a constant voltage charging area, in which charging is carried out at the set voltage E after the set voltage E is attained, are combined together for charging, and a charging current value in the constant current charging



area and the constant voltage charging area is regulated to 5 mA/cm2 or less in the form of

current density for a part, in which the positive and negative electrodes are opposed to each other.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office